

09/743209
STN Search Summary

=> d his

FILE 'CAPLUS' ENTERED AT 11:32:07 ON 05 NOV 2002

L1 31 S ?LACTAM (2W) (SYNTHASE OR SYNTHETASE)
L2 20 S L1 AND PD<2000

L2 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2002 ACS

AN 1998:680448 CAPLUS

TI .beta.-Lactam synthetase: implications for
.beta.-lactamase evolution

AU McNaughton, Heather J.; Thirkettle, Jan E.; Zhang, Zhihong; Schofield,
Christopher J.; Jensen, Susan E.; Barton, Barry; Greaves, Philip

SO Chemical Communications (Cambridge) (1998), (21), 2325-2326

L2 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2002 ACS

AN 1998:534547 CAPLUS

TI .beta.-Lactam synthetase: a new biosynthetic enzyme

AU Bachmann, Brian O.; Li, Rongfeng; Townsend, Craig A.

SO Proceedings of the National Academy of Sciences of the United States of
America (1998), 95(16), 9082-9086

L2 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2002 ACS

AN 1994:127944 CAPLUS

TI High-molecular-weight protein 2 of Yersinia enterocolitica is homologous
to AngR of Vibrio anguillarum and belongs to a family of proteins involved
in nonribosomal peptide synthesis

AU Guilvout, Ingrid; Mercereau-Puijalon, Odile; Bonnefoy, Serge; Pugsley,
Anthony P.; Carniel, Elisabeth

SO Journal of Bacteriology (1993), 175(17), 5488-504

L2 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2002 ACS

AN 1988:626409 CAPLUS

DN 109:226409

TI Phosphate repressible and inhibitable .beta.-lactam
synthetases in Cephalosporium acremonium strain C-10

AU Zhang, Jinyou; Wolfe, Saul; Demain, Arnold L.

CS Dep. Appl. Biol. Sci., Massachusetts Inst. Technol., Cambridge, MA, 02139,
USA

SO Applied Microbiology and Biotechnology (1988), 29(2-3), 242-7

CODEN: AMBIDG; ISSN: 0175-7598

DT Journal

LA English

L2 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2002 ACS

AN 1981:61412 CAPLUS

TI Increase in activity of .beta.-lactam synthetases
after growth of Cephalosporium acremonium with methionine or norleucine

AU Sawada, Y.; Konomi, T.; Solomon, N. A.; Demain, A. L.

SO FEMS Microbiol. Lett. (1980), 9(4), 281-4

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RESULT 2

AAR77860

ID AAR77860 standard; Protein; 513 AA.

XX

AC AAR77860;

XX

DT 13-NOV-1995 (first entry)

XX

DE S. clavuligerus ORF3 product.

XX

KW Clavulinic acid; clavulinate; antibiotic; beta-lactamase-inhibitor.

XX

OS Streptomyces clavuligerus.

XX

PN CA2108113-A.

XX

PD 09-APR-1995.

XX

PF 08-OCT-1993; 93CA-2108113.

PR 08-OCT-1993; 93CA-2108113.

XX

PA (UYAL-) UNIV ALBERTA.

XX

PI Aidoo KA, Jensen SE, Paradkar AS;

XX

DR WPI; 1995-207301/28.

DR N-PSDB; AAQ91580.

XX

PT Clavulanic acid biosynthesis enzymes and corresp. DNA - useful for
PT biosynthesis of the antibiotic in Streptomyces hosts which do not
PT naturally produce clavulanate

XX

PS Claim 25; Fig.12; 41pp; English.

XX

CC A 15 kb fragment S. clavuligerus NRRL 5741 genomic DNA (AAQ91580),
CC extending downstream from pcbC, included 10 ORFs encoding the
CC enzymes required for clavulinate biosynthesis. The ORF3 product
CC (AAR77860) did not show significant similarity to any proteins in
CC the databases examined.

XX

SQ Sequence 513 AA;

Query Match 100.0%; Score 2618; DB 16; Length 513;

Best Local Similarity 100.0%; Pred. No. 6e-214;

Matches 512; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 GAPVLPAAFGFLASARTGGGRAPGPVFATRGSHTDIDTPQGERSLAATLVHAPSVAPDRA 60
      |||
Db      2 gapvlpaaafgflasartgggrapgpvfatrgshtdidtpqgerslaatlvhapsvapdra 61

Qy     61 VARSLTGAPTTAVLAGEIYNRDELLSVLPAGPAPEGDAELVLRLLERYDLHAFRLVNGRF 120
      |||
Db     62 varsitgapttavlageiynrdellsvlpagpapegdaelvlrllerydlhafrlvngrf 121

Qy    121 ATVVRTGDRVLLATDHAGSVPLYTCVAPGEVRASTEAKALAAHRDPKGFPLADARRVAGL 180
      |||
Db    122 atvVRTgdrvllatdhagsvplytcvapgevrasteakalaahrdpkgfpladarrvagl 181

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Qy 181 TGVYQVPAGAVMDIDLGS GTAVTHRTWTPGLSRRILPEGEAVA AVRAALEKAVAQRVTPG 240
 ||||||||||||||||||
 Db 182 tgvyqvpagavmdidlgsgtavthrtwtpglrrilpegeavaavraalekavaqrvtpg 241

 Qy 241 DTPLVVLSSGIDSSGVAACAHRAAGELDTVSMGTDTSNEFREARAVVDHLRTRHREITIP 300
 ||||||||||||||||||
 Db 242 dtplvvlsggidssgvaacahraageldtvsmgtdtsnefrearavvdhlrtrhre itip 301

 Qy 301 TTELLAQLPYAVWASESVDPDIIEYLLPLTALYRALDGPERRILTGYGADIPLGGMHRED 360
 ||||||||||||||||||
 Db 302 ttellaqlpyavwasesvdpdiieyllpltalyraldgperriltgygadiplggmhred 361

 Qy 361 RLPALDTVLAHDMATFDGLNEMSPVLSTLAGHWTTHPYWDREVLDLLVSLEAGLKRRHGR 420
 ||||||||||||||||||
 Db 362 rlpaldtvlahdmatfdglnemspvlstlaghwtt hpywdrevldllvsleaglkrrhgr 421

 Qy 421 DKWVLRAAMADALPAETVNRPKLGVHEGSGTTSSFSRLLLDHGVAEDRVHEAKRQVVREL 480
 ||||||||||||||||||
 Db 422 dkwvlraamad alpaetvnrpklgvhegs gttssfsrllldhgvaedrvheakrqvvrel 481

 Qy 481 FDLTVGGGRHPSEVDTDDVVR SVADRTARGAA 512
 ||||||||||||||||||
 Db 482 fdltvgggrhpsevdtddvvrsvadrtargaa 513

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